

**DEVICE AND METHOD FOR SELECTIVELY POWERING DOWN
INTEGRATED CIRCUIT BLOCKS WITHIN A SYSTEM ON CHIP**

Abstract of the Disclosure

A system-on-chip (SOC) includes a power down circuit. Within the SOC are several circuit blocks, each of them operating based upon a local clock signal.

5 A system clock is coupled to each of the circuit blocks for providing a system clock signal thereto which functions as the local clock signal for selected circuit blocks. A power control manager provides a signal that at least partially determines whether the

10 system clock signal will operate as the local clock signal for selected circuit blocks. The respective circuit blocks include a local power control circuit for selectively maintaining the system clock signal as the local clock signal after the local power control

15 receives a signal from the power control manager to shutdown this circuit block if this circuit block is currently busy when the signal to shutdown is received.